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IN THE CLAIMS:

1-53. (Withdrawn)

54. (Currently amended) A method for modulating proliferation of a plant cell comprising:

(i.) introducing into the plant cell an expression cassette comprising an isolated nucleic acid molecule encoding a cell proliferation-related polypeptide, wherein the polypeptide binds in a yeast two hybrid assay to a fragment of a protein of selected from the group consisting of OsE2F1 (SEQ ID NO: 494), Os018989-4003 (SEQ ID NO: 2), OsE2F2 (SEQ ID NO: 40), OsS49462 (SEQ ID NO: 206), OsCYCOS2 (SEQ ID NO: 210), OsMADS45 (SEQ ID NO: 202), OsRAP1B (SEQ ID NO: 244), OsMADS6 (SEQ ID NO: 236), OsFDRMADS8 (SEQ ID NO: 228), OsMADS3 (SEQ ID NO: 232), OsMADS5 (SEQ ID NO: 234), OsMADS15 (SEQ ID NO: 240), OsHOS59 (SEQ ID NO: 258), OsGF14-e (SEQ ID NO: 278), OsDAD1 (SEQ ID NO: 292), Os006819-2510 (SEQ ID NO: 296), OsCRTC (SEQ ID NO: 300), OsSGT1 (SEQ ID NO: 310), OsERP (SEQ ID NO: 312), OsCHIB1 (SEQ ID NO: 318), OsCS (SEQ ID NO: 322), OsPP2A-2 (SEQ ID NO: 330), and OsCAA00866 (SEQ ID NO: 336), wherein the binding of the polypeptide in the yeast two hybrid assay to the fragment of a protein of SEQ ID NO: 210 is indicative that the polypeptide is a proliferation-related polypeptide; and

(ii.) expressing the polypeptide in the cell,
whereby proliferation of the plant cell is modulated.

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55. (Currently amended) The method of claim 54, wherein expression of the polypeptide in the cell results in an enhancement of a rate or extent of proliferation of the cell compared to a cell not introduced with an isolated nucleic acid molecule encoding a cell proliferation-related polypeptide.

56. (Withdrawn)

57. (Currently amended) The method of claim 54, wherein the ~~isolated nucleic acid molecule comprises a~~ fragment of a protein of SEQ ID NO: 210 is encoded by the nucleic acid sequence of SEQ ID NO: 209 ~~selected from one of odd numbered SEQ ID NOs: 1-339.~~

58. (Withdrawn)